

**FORM-V**  
**ENVIRONMENTAL STATEMENT**

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING**  
**31<sup>ST</sup> MARCH 2022**

**PART-A**

(i)	Name and address of the owner / Occupier of the Industry operation or process (Name of the Project Officer/ Sub-Area Manager & Office address to be given.	:	<b>Sri- Uren Pattnaik</b> <b>Project Officer,</b> Office of the Project Officer, Ananta Opencast Project, P.O. Dera- 759 103, Dist.: Angul, Orissa
(ii)	Industry Category	:	Primary ( <b>Coal Mining Operation</b> )
(iii)	(a)Production Capacity	:	<b>20 MTPA</b>
	(b)Coal Production during the year <b>2021-22</b>	:	<b>13.575 MT</b>
(iv)	Year of Establishment	:	<b>1988</b>
(v)	Date of last Environmental Statement Submitted	:	<b>23.09.2021</b>

**PART- B**

**WATER AND RAW MATERIAL CONSUMPTION**

Note: Average Water Consumption in (KL/Day) for the whole year is given. Raw material consumption is given per unit of Coal produced.

**(I) WATER CONSUMPTION (KL/DAY):**

SL	Industrial / Mining	Consumption in KL/Day
1(a)	Haul Road Dust Suppression	925.00
(b)	Dust Suppression at CHP	120.00
(c)	Dust Suppression at Siding	475.00
(d)	Fire Fighting	130.00
(e)	Workshop	50.00
(f)	Others (Service building, Watering Green Belt etc.)	30.00
2.	Domestic	NIL **
<b>3.</b>	<b>Grand Total in KL/Day</b>	<b>1730.00</b>

\* Domestic water supply from IWSS Lingaraj Area Talcher.

Name of Product	Water consumption per Unit of Product(Liter/ton)	
	2020-21	2021-22
Coal	<b>71.53</b>	<b>46.51</b>



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**(ii) RAW MATERIAL CONSUMPTION (Per ton of coal)**

Name of Raw Material	Consumption of Raw Material (Per Ton of Coal Produced)	
	2020-21	2021-22
H.S. Diesel (Ltrs/ T)	1.747(Dept. +Cont.)	2.06 (Dept. +Cont.)
Petrol(Ltrs/ T)	NIL	NIL
Lubricants(Ltrs/ T)	0.032(Dept. +Cont.)	0.025(Dept. +Cont.)
Electricity(kwh/T)	1.71	0.88
Explosives(Kg/T)	0.623	0.804

**PART-C****POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT**  
(Parameters as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged mass/day (KL / day)	Concentration of Pollutants in discharges (mass/ volume)	% of Variation from Prescribed Standards with Reasons
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**Water (Annual average)**

		Mine sump	OGT Outlet	STP Outlet	Within Prescribed Standard
TSS(mg/l)	Not possible to Quantify	--	29.00	39.88	
BOD(mg/l)		--	--	<2	
COD(mg/l)		--	47.00	--	
pH		6.31	7.02	7.29	
O&G ( mg/1)		--	<4.00	--	

**AIR (Ambient Air Quality of one station- Annual average: Gutha Shahi A2)**

			Within Prescribed Standard
SPM(ug/m <sup>3</sup> )	Not Possible to Quantify	135.37	
PM 10 (ug/m <sup>3</sup> )		73.29	
PM 2.5 (ug/m <sup>3</sup> )		36.00	
SO <sub>2</sub> (ug/m <sup>3</sup> )		17.88	
NO <sub>x</sub> (ug/m <sup>3</sup> )		33.25	

**PART-D****HAZARDOUS WASTES**

As specified under Hazardous Waste Management &amp; Handling Rules, 1989)

	Hazardous Waste	Total Quantity (Liter/Kg)	
		During the financial year 2020-21	During the current financial year 2021-22
(a)	<b>From Process ;</b>		
i	Burnt Oil recovered in Workshop	30650 Ltrs	26595 Ltrs
ii	Oil soaked filters in Nos.	455 Nos.	390 Nos.
(b)	<b>From Pollution Control facility :-</b>		
i	Oil / Oil emulsion recovery from Oil & Grease Trap.	20 ltrs	15 ltrs
ii	Oily sludge from ETP	205 m <sup>3</sup>	180 m <sup>3</sup>
iii	Chemical Waste ( if any )	NIL	NIL

Sanjay

**PART – E**  
**SOLID WASTES (Other than Hazardous)**

	Particulars	Total Quantity of Solid Waste Generated (Mm <sup>3</sup> ).	
		2020-21	2021-22
a	From Process(Top Soil & OB)	14.429 Mm <sup>3</sup>	26.721 Mm <sup>3</sup>
b	From Pollution Control facilities (STP & Shed-Pond Sludge)	STP - 40 m <sup>3</sup>	STP - 35 m <sup>3</sup>
c	(I) Qnty. Recycled or Re-utilized (OB Back filled)	14.429 Mm <sup>3</sup>	26.721 Mm <sup>3</sup>
	(ii) Sold	NIL	NIL
	(iii) Disposed	NIL	NIL

**PART-F**

PLEASE SPECIFY THE CHARACTERISTICS (IN TERMS OF CONCENTRATION AND QUANTUN) OF HAZARDOUS AS WELL AS SOLID WASTE AND INDICATE THE DISPOSAL PRACTICE ADPOTED FOR BOTH THESE CATEGORIES OF WASTES.

(I) **Hazardous Wastes:**

Name of Hazardous Waste	Quantity generated in the year-2021-22	Disposal Practices
Burnt oil from work shop (Ltrs)	26595 Ltrs	Auction to authorized recyclers
Oil soaked filter from workshop	390 Nos.	Disposed in Impervious Pit
Oil & Grease from ETP/OTG (Ltrs)	15Ltrs	Auction to authorized recyclers
Oily Sludge from ETP/OTG (m <sup>3</sup> )	180 m <sup>3</sup>	Disposed in Impervious Pit
Oil emulsion	NIL	-
Chemical Waste, if any	NIL	-
Battery(Nos.)	44 Nos.	Auction to authorized recyclers

Note: A detailed note on disposal practices of the above waste should be given separately.

(II) **Solid Wastes:**

Solid Waste	Quantity generated In the year 2021-22	Disposal Practices
Top Soil (Mm <sup>3</sup> )	0.20 Mm <sup>3</sup>	Spread over the backfilled area for reclamation
OB (Mm <sup>3</sup> )	26.521 Mm <sup>3</sup>	Used to filled quarry voids.
Sludge from STP	35 m <sup>3</sup>	Used as manure

*D. Sanjay*

**Land Reclamation and OB disposal – Progressive till March- 2022**

	<b>Area (Ha.)</b>	<b>Volume / No. of Plants</b>
(1) External OB Dump	10.80 Ha	<b>1.96 Mm<sup>3</sup>/27000 Nos.</b>
(2) Excavated land	556.95 Ha	<b>189.925 Mm<sup>3</sup></b>
(3) Land affected (1+2)	567.75Ha	-
(4) Backfilled (Out of 2)	280.00 Ha	<b>187.965 Mm<sup>3</sup> +12.34 Mm<sup>3</sup></b> <i>(From Bhubaneswari OCP)</i> <b>Total = 200.305 Mm<sup>3</sup></b>
(5) Land Physically reclaimed(Out of 3)	139.50 Ha	
(6) Land Bio logically reclaimed(Out of 3)	105.60*Ha	<b>315074Nos.</b>

\* *Out of 105.60Ha Biological reclamation, 10.80 Ha is external OB dump reclamation.*

**PART-G**

**IMPACT OF POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON COST OF PRODUCTION**

In order to carry out mining in an eco- friendly manner, a detail EMP was prepared by Regional Institute- VII of CMPDIL. The main pollution control measures suggested in EMP along with the measures implemented so far have been summarized in the Table 1.1 to 1.

**TABLE-1.1**  
**AIR POLLUTION CONTROL MEASURES**

<b>Sl.No</b>	<b>EMP PROVISIONS</b>	<b>Whether provided or not</b>	<b>Remarks</b>
1.	Watering and grading of all roads to minimize air borne dust from vehicles.	Provided	
2.	Biological reclamation of land	Provided	
3.	Green Belt around mine &infrastructures.	Provided	
4.	Drills fitted with dust control devices.	Provided	
5.	Dust Suppression/dust extraction system to be provided in CHP	Provided	
6.	Improved maintenance of Plant & Machinery	Provided	
7.	Mechanized coal transportation system	Provided	

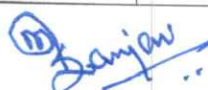


**TABLE-1.2****WATER POLLUTION CONTROL MEASURES**

SI.N	EMP Provision	Whether provided or not	Remarks
1.	Mine Water is to be collected in central sump on dip side of pit. This will act as Sedimentation lagoon.	Provided	Total sump capacity= <b>38.10 Lakhs m<sup>3</sup></b>
2.	Run-off around reclamation area will be controlled by providing catch drains and sedimentation lagoon combination.	Provide	
3.	Surface run-off from external dump would be collected through a series of contour drains, which would be connected, to a water retention pond. The clear water from this pond will be discharged to natural watercourse.	Provided	
4.	Domestic wastewater will be treated in screens, oxidation pond/ aerated lagoon. Sanitary waste to be disposed off into septic tank & soak-away pit.	Provided	STP of <b>0.51 MLD</b> Capacity provided
5.	Workshop effluent will be treated in Oil & Grease Trap & Sedimentation Tank.	Provided	ETP of <b>240 m<sup>3</sup></b> capacity provided
6.	Zero discharge from Mine shall be maintained.	Maintained	
7.	Piezometer shall be installed for measurement of under- ground water depth and its quality.	Provided	PZ No.- <b>MTP-05</b> Near Ananta canteen

**TABLE-1.3****LAND RECLAMATION**

S.No.	EMP Provisions	whether provided or not	Remarks
01.	<b>Top Soil Management :-</b> Proper stripping, storage and Relocation of topsoil.	Provided	
02.	<b>Technical Reclamation of O.B Dump :-</b> Proper reshaping and regarding of top surface, providing drainage arrangement and top soil spreading for external and internal dumps.	Provided	
03.	<b>Biological Reclamation :-</b> Plantation of suitable yearly Species of herbs, shrubs & plants over technically Reclaimed dumps.	Provided	



**IMPACT OF POLLUTION CONTROL MEASURES ON COST OF PRODUCTION**

Cost of Environmental Management during 2021-22 was Rs.5.00 per ton of Coal.

**PART-H**


Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution.

<b>HEADS</b>	<b>AMOUNT Rs. ( approx. in lakhs</b>
Dust suppression (Dept.)	225.60
Dust suppression (Contractual.)	86.98
Plantation	30.00
Environmental monitoring by CMPDIL	79.195
<b>ETP and STP</b> operation and maint. cost	25.00
Cleaning of roads and service buildings	10.27
Annual maintenance of coal transport road.	95.00
Hydrogeological report for NOC, CGWA	15.00
Environment & Ecology Study	30.00
Installation of Fog cannon	60.00
Installation of Wheel washing system	25.00
Installation of Instant shower system	30.00
Installation of vertical greenery	100.00
Installation of wind warier	100.00
Construction of Poly house	20.00
Renovation of Medicinal garden	95.00
<b>Grand total</b>	<b>1027.045</b>

**PART - I**

**ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONEMNT**

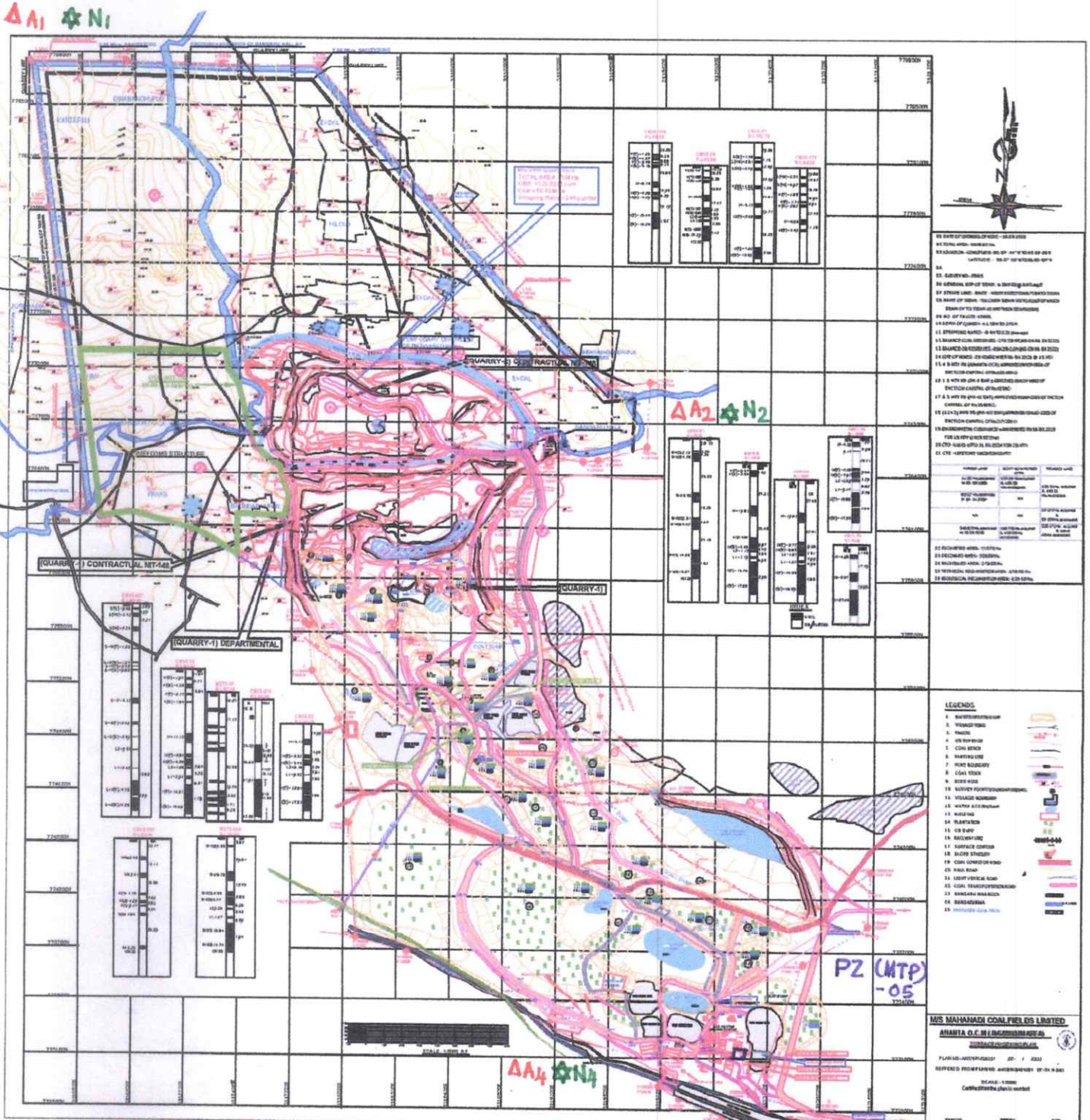
Note: Please attach a plan showing the relevant features like present working / quarry, External Dump, Back filling, Plantation, Sedimentation Pond / MDTP, O& G Trap, ETP, Workshop, CHP, STP etc and Environmental Monitoring Stations.

  
Envt .Officer,  
Ananta OC Project

  
Project Officer,  
Ananta OC Project  
**Project Officer**  
Ananta Opencast Project  
Jagannath Area, MCL

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**AIR, NOISE & WATER MONITORING STATIONS**

1. GUTHA SAHI VILLAGE
2. NORTH EAST OF MINE
3. CENTRAL NURSERY OPP. G.M OFFICE (JA)
4. NEAR NBVL STATION JNC
5. ANANTA VIHAR COLONY TAP WATER
6. DERA TUBE WELL WATER
7. PIEZO METER (MTP-05) NEAR AACP CANTEEN

Δ A1  
 Δ A2  
 Δ A3  
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OW2  
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 CENTRAL NURSERY  
 OW1  
 ANANTA VIHAR

19/7/22  
 SURVEYOR  
 AACP

@Sanjay  
 19/7/22  
 ENV. OFFICER  
 AACP

P.O  
 AACP

**LEGENDS**

1	BOUNDARY
2	ROAD
3	RAILWAY
4	CONCRETE
5	ASPHALT
6	GRAVEL
7	STONE
8	CLAY
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**M/S MAHARAJI COM FIELDS LIMITED**  
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